Please replace the paragraph beginning at line 25 on page 9 through line 5 on page 10 of the specification with the following rewritten paragraph:

At 35 °C, 45  $\mu$ l of H<sub>2</sub>O<sub>2</sub> (50%) were added to a solution of 325  $\mu$ l of  $\alpha$ -terpinene and 48.5 mg of Na<sub>2</sub>MoO<sub>4</sub>·2H<sub>2</sub>O in 4 ml of methanol. Five further 45  $\mu$ l portions of H<sub>2</sub>O<sub>2</sub> (50%) were added to this mixture as soon as the red-colored reaction mixture turned yellow again. After 1.5 hours, the reaction mixture was analyzed by means of HPLC. Analysis gave a quantitative formation of ascaridol.

## 100

## IN THE CLAIMS:

## Please amend claims 1 to 3 as follows:

- 1. (Amended) A process for the oxidation of organic substrates by means of  ${}^{4}O_{2}$ , which comprises adding 30-70% strength  $H_{2}O_{2}$  to hydrophobic organic substrates which react with  ${}^{4}O_{2}$  in an organic solvent in the presence of a homogeneous catalyst, whereupon, following the catalytic decomposition of  $H_{2}O_{2}$  to give water and  ${}^{4}O_{2}$ , oxidation to give the corresponding oxidation products takes place.
- 2. (Amended) The process as claimed in claim 1, wherein the substrates which react with  ${}^{1}O_{2}$  used are olefins which contain 1 to 10 C=C double bonds;  $C_{6}$ - $C_{50}$  phenols, polyalkylbenzenes, polyalkoxybenzenes; polycyclic aromatics having 2 to 10 aromatic rings; alkyl sulfides, alkenyl sulfides, aryl sulfides which are either mono- or disubstituted on the sulfur atom, and  $C_{4}$ - $C_{60}$  heterocycles having an O, N or S atom in the ring, which may be unsubstituted or may be mono- or polysubstituted by halogens, cyanide, carbonyl groups, hydroxyl groups,  $C_{1}$ - $C_{50}$  alkoxy groups,  $C_{1}$ - $C_{50}$  alkyl groups,  $C_{6}$ - $C_{50}$  aryl groups,  $C_{2}$ - $C_{50}$  alkenyl groups,  $C_{2}$ - $C_{50}$  alkynyl groups, carboxylic acid groups, ester groups, amide groups, amino groups, nitro groups, silyl groups, silyloxy groups, sulfone groups, sulfoxide groups or by one or more  $NR^{1}R^{2}$  radicals in which  $R^{1}$  or  $R^{2}$  may be identical or different and are H;  $C_{1}$ - $C_{50}$  alkyl; formyl;  $C_{2}$ - $C_{50}$  acyl,  $C_{7}$ - $C_{50}$  benzoyl, where  $R^{1}$  and  $R^{2}$  may also together form a ring.



3. (Amended) The process as claimed in claim 1, wherein the solvent used is C<sub>1</sub>-C<sub>8</sub>-alcohols, formamide, N-methylformamide, dimethylformamide, sulfolane or propylene carbonate.

## Please add the following new claims:

- 9. (New) A process for the oxidation of organic substrates by means of  ${}^{1}O_{2}$ , which consists essentially of adding 30-70% strength  $H_{2}O_{2}$  to hydrophobic organic substrates which react with  ${}^{1}O_{2}$  in an organic solvent in the presence of a homogeneous catalyst, whereupon, following the catalytic decomposition of  $H_{2}O_{2}$  to give water and  ${}^{1}O_{2}$ , oxidation to give the corresponding oxidation products takes place.
- 10. (New) The process as claimed in claim 9, wherein, following the reaction of the hydrophobic organic substrates which react with  ${}^{1}O_{2}$  in a monohydric  $C_{1}$ - $C_{8}$  alcohol as solvent in the presence of a molybdate catalyst with 30-70% strength  $H_{2}O_{2}$  to give the corresponding oxidation products, the removal and recycling of the precipitated-out catalyst when the reaction is complete is carried out by simple centrifugation or filtration.
  - 11. (New) The process of claim 7 wherein the reaction temperature is 15 to 35°C.

